

Amendments to Claims

Claims 1-10 (**Cancelled**)

Claim 11 (**Currently Amended**) A substantially pure ~~RDE-4~~ polypeptide encoded by ~~the~~ isolated a nucleic acid of claim 8 molecule which hybridizes under high stringency conditions to a complement of the nucleic acid molecule set forth in SEQ ID NO: 4

Claim 12 -16 (**Cancelled**)

Claim 17 (**New**) The polypeptide of claim 11, which hybridizes under conditions of hybridization at 68°C in 5x SSC/5x Denhardt solution/1.0% SDS, followed by washing in 0.2x SSC/0.1% SDS at room temperature.

Claim 18 (**New**) A substantially pure polypeptide encoded by a nucleic acid molecule having at least 80% sequence identity with the nucleic acid molecule set forth as SEQ ID NO:4.

Claim 19 (**New**) The polypeptide of claim 18, which is encoded by a nucleic acid molecule having at least 95% identity with the nucleic acid molecule set forth as SEQ ID NO:4.

Claim 20 (**New**) The polypeptide of claim 18, which is encoded by a nucleic acid molecule having at least 98% identity with the nucleic acid molecule set forth as SEQ ID NO:4.

Claim 21 (**New**) The polypeptide of claim 11 or 18, which polypeptide has a dsRNA binding activity.

Claim 22 (**New**) The polypeptide of claim 11 or 18, which polypeptide has the dsRNA binding motif of SEQ ID NOS:8.

Claim 23 (**New**) A substantially pure polypeptide fragment comprising at least 30 contiguous amino acids of SEQ ID NO:5.

Claim 24 (**New**) A substantially pure protein encoded by the nucleic acid molecule set forth in SEQ ID NO:4.

Claim 25 (**New**) A substantially pure protein comprising the amino acid sequence of SEQ ID NO:5.

Claim 26 (**New**) A fragment of claim 24, wherein said fragment comprises amino acids 150 to 212 of SEQ ID NO:5.

Claim 27 (**New**) A substantially pure RDE-4 polypeptide encoded by a nucleic acid molecule which can complement a RDE-4 mutation.

Claim 28 (**New**) A fusion protein comprising a fragment of the polypeptide of any one of the preceding claims and a heterologous polypeptide.

Claim 29 (**New**) The fusion protein of claim 28, wherein the heterologous polypeptide is selected from the group consisting of an immunoglobulin Fc (IgFc) polypeptide, a lacZ polypeptide, a glutathione S-transferase (GST) polypeptide, a six histidine tag polypeptide and a signal sequence polypeptide.

Claim 30 (**New**) A method of preparing an RNAi agent, the method comprising incubating a dsRNA in the presence of an RDE-4 protein.